

**ASSESS KNOWLEDGE AND ATTITUDE AMONG JUNIOR PUBLIC HEALTH NURSES
REGARDING REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME –
DIRECTLY OBSERVED TREATMENT SHORT COURSE IN SELECTED PRIMARY
HEALTH CENTERS OF KOLLAM, KERALA**

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ABSTRACT

Among all infectious diseases Tuberculosis is one of the six killer diseases caused by *Mycobacterium tuberculosis*. It is one of the most common infectious disease and a serious public health problem in the World. The disease primarily affects lungs and causes pulmonary tuberculosis. It can also affect intestine, meninges, bones and joints, lymph glands, skin and other tissues of the body. The study was to assess the knowledge and attitude among JPHNs regarding RNTCP-DOTS programme by using structured questionnaire and modified attitude scale. Non experimental research approach with descriptive study design was used and sample was selected by multistage sampling technique. The result showed that majority (74%) of the sample had average knowledge, 15% had good knowledge and 11% had poor knowledge among JPHNs regarding RNTCP-DOTS programme. This study estimated that there was significant association between knowledge and years of experience among JPHNs regarding RNTCP-DOTS programme. In the level of attitude there was significant association between attitude and marital status of the JPHNs regarding RNTCP-DOTS programme. The study concluded that, improved knowledge leads to better performance of the JPHNs in the treatment of tuberculosis. As the level of educational qualifications and the length of services were increasing, the knowledge and attitude of JPHNs were also increasing regarding the RNTCP DOTS programme.

KEYWORDS: The disease primarily affects lungs and causes pulmonary tuberculosis.

INTRODUCTION

Since the evolution of human life, man is seen with constant revolutionary efforts to prevent and overcome the harmful effects of diseases and infection. Most of the time infection was seen to kill number of people with its dreadful effects. But at the same time, man has discovered some protective ways to remove deadly microorganisms from the environment.^[1] Tuberculosis remains a worldwide public health problem despite the fact that the causative organism was discovered more than 100 years ago. Highly effective drugs and vaccine are available making tuberculosis a preventable and curable disease.

Technologically advanced countries have achieved spectacular result in the control of tuberculosis. For example, from 1900 to 1980 tuberculosis death rate declined from 199 to 0.5 per 100,000 in the United States. During the year 2008, there were an estimated 9.4 million (in range of 8.9-9.9 million) incident cases of tuberculosis globally with 11.1 million (9.6 – 13.3 million) prevalent cases; India is the highest TB burden country in the world and accounts for nearly one –fifth

(20%) of global burden of tuberculosis. Every year 1.8 million persons develop tuberculosis, of which about 0.8 million are new smear positive highly infectious cases. The programme is integrated with the country's general health services. In 1962, National Tuberculosis Programme (NTP) was started with a long term goal to reduce the problem of tuberculosis in the community. Full-fledged Tuberculosis Programme that is Revised National Tuberculosis Control Programme (RNTCP) has been started to control Tuberculosis in the year 1997. The goal of RNTCP is to decrease morbidity and mortality due to tuberculosis and cut transmission of infection.

STATEMENT OF THE PROBLEM

Assess knowledge and attitude among Junior Public Health Nurses regarding Revised National Tuberculosis Control Programme – Directly Observed Treatment Short course in selected Primary Health Centers of Kollam.

OBJECTIVES

- To assess the knowledge among JPHNs regarding RNTCP-DOTS programme by using structured questionnaire.
- To assess the attitude among JPHNs regarding RNTCP-DOTS programme by using a modified attitude scale.
- To find out association between the level of knowledge and selected socio-demographic variables.
- To find out association between the level of attitude scores and selected socio-demographic variables.
- To find out relationship between knowledge and attitude scores among JPHNs regarding RNTCP – DOTS programme.

HYPOTHESES

H₁: There will be significant association between knowledge and selected socio-demographic variables of the JPHNs regarding RNTCP- DOTS.

H₂: There will be significant association between attitude and selected socio-demographic variables of the JPHNs regarding RNTCP- DOTS.

H₃: There will be significant relationship between knowledge and attitude scores among JPHNs regarding RNTCP-DOTS.

METHODOLOGY

RESEARCH APPROACH

The Approach used in the study is Quantitative research approach.

Research Design

The research design adopted for this study is Non-experimental- Survey Research design. It is the simplest type of the Non- experimental design, where only the survey method is selected as the study process. These are designed to gain more knowledge, information about the characteristics within a particular field of study.

Variables

Independent variable -In the present study independent variable, is not identified since the dependent variable is not manipulated.

Dependent variable-In the present study, the dependent variables are the outcome on knowledge and attitude scores.

Setting of the study

Setting is the most specific place where data collection occurs. The study was conducted in selected Primary Health Centres.

Population--In the present study, the population consisted of all JPHNs working in Primary Health Centres at Kollam District.

Sample--The study sample was 100 JPHNs who are working in Primary Health Centres at Kollam District.

Sampling technique: In this study, random selection in multi stage sampling was used.

TOOLS AND TECHNIQUE FOR DATA COLLECTION

The most important and crucial aspects of any investigation requires appropriate research tools and techniques.

Part 1: socio-demographic data.

Part 2: structured knowledge questionnaire.

Part 3: attitude score using modified Likert scale.

DATA ANALYSIS AND INTERPRETATION

Data will be analyzed by using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (Karl Pearson's correlation coefficient and chi square test.) The present study was conducted to assess the knowledge and attitude of the JPHNs regarding Revised National Tuberculosis Control Programme in selected PHCs in Kollam district. Data was collected from 100 JPHNs working in selected PHCs. The study findings are presented in this chapter under the following headings.

SECTION I: Description of socio demographic data of 100 JPHNs. Demographic variables like age, gender, educational qualification, year of experience, and source of information

SECTION II: Knowledge of JPHNs regarding RNTCP-DOTS programme.

It is decided to use a structured knowledge questionnaire on 30 questions.

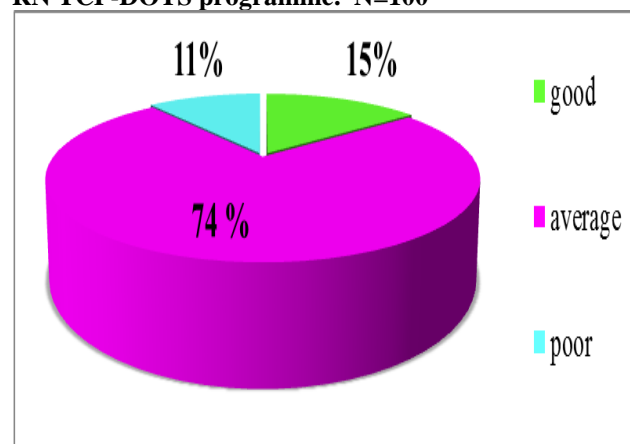
SECTION III: Attitude of JPHNs regarding RNTCP-DOTS programme.

SECTION IV: Association between the level of knowledge and selected socio- demographic variables

SECTION V: Association between the level of attitude scores and selected Socio-demographic variables.

SECTION VI: Relationship between knowledge and attitude scores of JPHNs regarding RNTCP -DOTS pro.

Assessment of knowledge scores of JPHNs regarding RN TCP-DOTS programme. N=100



Mean, Range, Standard deviation of knowledge scores of JPHNs regarding RNTCP-DOTS programme, N=100

Knowledge Score	Mean	S D	Range
Knowledge score of JPHNs	28.71	4.92	17-36

ASSESSMENT OF ATTITUDE SCORE OF JPHNS REGARDING RNTCP – DOTS PROGRAMME, N=100

Attitude score	Grade	Frequency	Percentage
Unfavorable	15-35	0	0%
Neutral	36-55	29	29%
Favorable	56-75	71	71%

RESULTS

SECTION 1: Socio Demographic Data of 100 JPHNs

- In this study, 73% belonged to the age group of above 36 years, while 24% belongs to the age group of 26-35 years, and 3% to the age group below 25 years.
- By religion, 69% were Hindus, 26% were Christians and 5% were Muslims.
- In Education status majority (82%) were JPHNs and 18% belonged to JPHNs with CNE.
- In marital status, 89% belonged to married couples, 6% were widows and 5% remain single.
- According to the residence status, almost half the samples (52%) were staying away from the working area, 25% JPHNs were close to the work area, 8% have rented house in their work area, and only 15% belonged to allotted quarters.
- According to year of experience, 39% were having more than 10 years of experience, 32% were between 6-10 years of experience. 27% JPHNs were having 1-5 years and 2% have less than one year of experience.
- 47% JPHNs attended once DOTS training programme, 16% have attended twice, and 18% have attended more than twice. But there were 19% JPHNs who were not attended the DOTS training programme.

SECTION 2: Assess the knowledge among JPHNS regarding RNTCP-DOTS

The result showed that majority (74%) of the samples had average knowledge, 15% had good knowledge and 11% had poor knowledge.

SECTION 3: Assess the attitude of JPHNS regarding RNTCP-DOTS

Result showed that 71% had favorable attitude who have scored between 75-56 and 29% had Neutral attitude that have scored between 55-36 and none of them showed unfavorable attitude towards RNTCP-DOTS programme.

SECTION 4: Association between the knowledge score and selected socio-demographic variables

There was no significant association between knowledge and selected socio –demographic variables such as age, religion, education, marital status, DOTS training

programme and residential status of the JPHNs. But there was significant association between the level of knowledge and year of experience in the field of RNTCP-DOTS programme.

The computed chi-square value for age was 3.21, religion was 1.14, education 1.96 marital status was 3.54, DOTS training programme 5.29 and residential status 6.58. As the χ^2 value is less than calculated value at 0.05 level it was statistically revealed that there was no significant association between knowledge and socio demographic variables such as age, religion, education, marital status, DOTS training programme and residential area. Hence null hypothesis was accepted and research hypothesis (H_1) was rejected.

For the variable, year of experience χ^2 value is higher than the calculated value at 0.05 significant, revealed that there was significant association between knowledge and year of experience. Hence null hypothesis was rejected and research hypothesis (H_1) was accepted.

SECTION 5: Association between the attitude scores and selected socio demographic variables

There was no significant association between attitude and selected socio demographic variables such as age, religion, education, DOTS training programme, residential status and years of experiences of the JPHNs in the field of RNTCP-DOTS programme. But there was significant association between attitude and marital status of the JPHNS.

The computed Chi-square value for age was 9.05 educations were 3.07, religion was 7.25, year of experience was 9.03, residential status was 8.15 and DOTS training programme was 11. The χ^2 value is less than the calculated value at 0.05 level it was statistically revealed that there was no significant association between attitude and socio demographic variables like age, religion, education, DOTS training programme, residential status and years of experiences of the JPHNs in the field of RNTCP-DOTS programme. But there was significant association between attitude and marital status of the JPHNS regarding RNTCP-DOTS training programme. Hence null hypothesis was rejected and research hypothesis (H_2) was accepted.

SECTION 6: Relationship between knowledge and attitude scores of JPHNs regarding RNTCP-DOTS programme

There was very low negative relationship between knowledge and attitude scores ($r = 0.08$) among JPHNS regarding RNTCP-DOTS programme.

DISCUSSION

Data collected were analyzed and interpreted using descriptive and inferential statistics. The results of the study showed that 15% of the JPHNs had good knowledge and majority of the samples (74%) had average and 11% JPHNs were poor in their knowledge

score. Regarding level of attitude shows 71% had favorable attitude who have scored between 75-56 and 29% had neutral attitude that have scored between 55-36 and none of them showed unfavorable attitude towards RNTCP-DOTS programme. Correlation co-efficient was done to assess the relationship between knowledge and attitude among the JPHNs regarding RNTCP-DOTS Programme. It was found that there was a statistical relation between knowledge and attitude. Correlation between knowledge and attitude $r = 0.08$. Hence it was revealed that there was very low negative relationship between level of knowledge and attitude.

This study revealed that there was no significant association between knowledge and selected socio-demographic variables such as age, religion, educational status, marital status, DOTS training programme and residential status. But there was significant association between the level of knowledge and years of experiences of the JPHNs regarding RNTCP –DOTS programme.

There was no significant association between level of attitude and some of the selected socio demographic variables such as age, religion, education, DOTS training programme, residential status and years of experiences of the JPHNs. But there was association between attitude and marital status and of the JPHNS.

NURSING IMPLICATIONS

The findings of the study have implications in the field of education, nursing practice, nursing administration and nursing research.

Nursing education

Nursing students will be aware of the impotence of teaching in clinical setting which contribute to effective patient care by emphasizing the importance of teaching communicable diseases in the nursing curriculum.

In-service education can also be conducted to improve the knowledge of health professionals regarding various aspects of diseases, prevention and management.

Nursing Administration

- Nurse administrator along with her team can take initiative in imparting information about the result of the study by individual and group teaching in the hospital especially in urban and rural community settings.
- Nursing administrators can conduct continuing education services to the health professionals to update their knowledge regarding RNTCP-DOTS programme to impart quality care to the T.B patients.

Nursing practice

Nursing practice deals with rendering comprehensive nursing care to the patients and community and primary health centres. The study reveals that lack of knowledge can alter the level of attitude. JPHNs should be

motivated and encouraged to attend the continuing nursing education for updating their knowledge in practical field, it will help to reduce the mortality and morbidity rate in the cases of tuberculosis. JPHNs are provided with DOTS training programme frequently towards the prevention, treatment and cure of the T.B diseases with programme of RNTCP-DOTS training.

Nursing research

- Research should be done to find out the various innovative methods for effective teaching of nurses to bring out a positive attitude toward health and adopt preventive measures to minimize the morbidity and mortality rates in the cases of TB.

Limitations

- The study was limited to see only the knowledge and attitude of JPHNs.
- The sample size was minimal (100).

Recommendations

Based on the finding of the present study, recommendations offered for future research are.

- A similar study can be conducted in different groups of health professionals
- A study can be replicated using large sample.
- A similar study can be conducted for other communicable diseases.
- Further research studies can be done in hospitals, community and primary health centres.
- A similar study can be conducted as a comparative study between rural and urban communities of the JPHNs.

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